WHAT IS CLAIMED IS:

1. A method of operating a display system in a vehicle having at least one camera for recording an observation region in the surroundings of the vehicle, having an image processing unit, in which the image data coming from the camera may be processed, having a display screen inside the vehicle, on which the image data coming from the image processing unit may be displayed as an image and having a sensor system for detecting the vehicle movement and relaying movement data to the image processing unit, the method comprising the steps of:

at a starting instant, determining a vehicle position as a starting point;

moving the vehicle from the starting point;

detecting the rotational angle of the vehicle around its vertical axis using the sensor system, beginning from the orientation at the starting point;

processing the image data coming from the camera in a image processing unit, taking into consideration the respective current rotational angle of the vehicle, in such a way that the orientation of objects from the observation region displayed in the image on the display screen corresponds to the orientation at the starting instant.

2. The method according to claim 1, wherein the image data of multiple cameras is mixed together in the image processing unit, in order to generate a joint image from the image data to be displayed on the display screen.

3. The method according to claim 1, wherein the camera is equipped with a wide angle

lens and the image distortions caused by the wide angle lens are at least partially removed by processing the image data in the image processing unit.

4. The method according to claim 1, wherein the observation region of the camera lies behind the rear of the vehicle.

5. The method according to claim 1, wherein the image data is processed in the image processing unit in such a way that the image displayed on the display screen corresponds to a perspective outside the vehicle.

6. The method according to claim 1, wherein for the display of the image on the display screen, a reduction factor is set, as a function of the rotational angle of the vehicle in relation to the starting position, for the display of the image imaging the observation region on the display screen.

7. The method according to claim 6, wherein the reduction factor is selected in such a way that the entire observation region is shown by the image on the display screen.

8. The method according to claim 1, wherein specific image details from the observation region may be zoomed in on during the display on the display screen by selecting a corresponding zoom factor.

9. The method according to claim 8, wherein the position of the zoomed image detail in relation to the boundaries of the observation region may be changed.

10. The method according to claim 8, wherein the selection of the zoom factor is performed by a setting of the operator.

11. The method according to claim 8, wherein the selection of the zoom factor is performed automatically by the image processing unit as a function of other state parameters.

12. The method according to claims 1, wherein a symbol, representing the position of the vehicle in the image is inserted into the image on the display screen.

13. The method according to claim 1, wherein the image data is processed in the image processing unit in such a way that the image displayed on the display screen corresponds to a top view from above the vehicle.

14. The method according to claim 9, wherein the selection of the position of the zoomed image detail is performed by a setting of the operator.

15. The method according to claim 9, wherein the selection of the position of the zoomed image detail is performed automatically by the image processing unit as a function of other state parameters.